

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims supersedes any previous listing. Favorable reexamination and reconsideration are respectfully requested in view of the preceding amendments and the following remarks.

Claim Status/Amendments

Claim 1 has been amended to clarify the claimed subject matter with respect to the art which is applied. Claims 49 to 51 have been amended so as to depend on claim 1. A new independent claim 63 has been added. Support for this new claim is found in the originally filed specification and claims. This new claim is patentable over the cited art for at least the reasons that it sets forth structure which is neither found in nor suggested by the cited art.

Rejections under 35 USC § 103

- 1) The rejection of claims 1, 5, 13, 15, 22, 26-27, 31, 34, 38-39, 43-44, 48,57 and 61-62 under 35 USC § 103(a) as being unpatentable over Martin et al. U.S. Patent No. 5,972,463 (hereinafter "Martin") in view of Kargol et al. U.S. Patent No. 5,492,662 (hereinafter "Kargol"), is respectfully traversed.
- 2) The rejection of claims 7, 10, 49-51 under 35 USC § 103(a) as being unpatentable over Martin in view of Kargol in view of Insley (U.S. Patent No. 5,451,437) is respectfully traversed.

First, in connection with the position taken in this rejection with respect to hollow fibers, Martin contains but a single reference to hollow and at column 5, lines 7-35 is such as to disclose:

The multicomponent filaments of this invention can be in the shape or form of fibers, ribbons, tapes, strips, bands, and other narrow and long shapes. Aggregations of the filaments, such as open, nonwoven webs, can be made up of a plurality of filaments with the same or different plastic compositions, geometric shapes, sizes and/or deniers. A particular form of such filaments is side-by-side (or side-side) bicomponent filaments or, preferably, sheath-core (or sheath/core) bicomponent

filaments, each comprising said components (a) and (b) with one or more (e.g., 1 to 9) interfaces between the components and with the material-air boundary of the filament defined at least in part by an external surface of component (b). In a **typical sheath-core filament**, the sheath, component (b), provides a matrix (with a continuous external surface, the filament's material-air boundary) for one or more components (a) in the form of cores. The filaments can be solid, **hollow**, or porous and straight or helical, spiral, looped, coiled, sinuous, undulating, or convoluted. They can be circular or round in cross section or non-circular or odd in cross section, e.g., lobal, elliptical, rectangular, and triangular. They can be continuous in length, that is, of indefinite length, or, by cutting them in that form, they can be made in a short, discontinuous, or staple form of definite length. The components (a) and (b) can be solid or noncellular, or one or both components can be cellular or foamed with open and/or closed cells. Both of the components (a) and (b) can have the same form or shape or one of them can have one form or shape and the other component can have a different form or shape. (Emphasis added)

This is the sole reference to "hollow" found in this document. Inasmuch as the rejection is not made under § 102 and is made under § 103, a rational common sense reason must be provided as to why the hypothetical person of ordinary skill would consider this disclosure such as to lead to the situation wherein hollow fibers or a mixture of hollow and solid fibers were considered for use over all of the other possibilities that are recited. Note the recent Supreme Court decision *Teleflex Inc v. KSR Int'l Co.*, 550 U.S._, 82 USPQ2d 1385 (2007)). Further, attention is called to the fact that hypothetical person of ordinary skill "thinks along the lines of conventional wisdom in the art and is not one who undertakes to innovate *Standard Oil Co. v American Cyanamid Co.*, 227 USPQ2d 293, 298 (Fed. Cir. 1985).

Further, as the Examiner is aware, in order to establish a *prima facie* case of obviousness, it is necessary to show that the hypothetical person of ordinary skill would, without any knowledge of the claimed subject matter and without any inventive activity, be motivated to arrive at the claimed subject matter given the guidance of the cited references when each is

fully considered as statutorily required.

The Examiner therefore needs to establish reason why the hypothetical person of ordinary skill would single out the term "hollow" from the above quoted disclosure and conclude that the use of all hollow or a mixture of hollow and solid fibers would be suggested by the above disclosure. Why not porous and straight? or spiral and triangular? This reference merely suggests that hollow is one of a number of different possibilities. Why focus on this particular characteristic other than it is set forth in the claims? On top of this, to conclude that a mixture of two possible forms is obvious is simply not supported by either references which is applied in this rejection.

Unless a showing as to why this combination would be suggested by the disclosure, there is nothing to lead the hypothetical person of ordinary skill to the conclusion reached in this rejection and therefore nothing to support the Examiner's effort to establish a *prima facie* case of obviousness.

In order to overcome the above-mentioned rejection under § 103 "a single component of hollow and solid or hollow continuous and/or short filaments" of claim 1 is amended to read "said filaments further consisting of a single component structure of hollow or solid filaments in continuous or short filaments, . . .".

As noted above, Martin is directed to a multicomponent filament arrangement which takes side-by-side (or side-side) bicomponent filaments or, preferably, sheath-core (or sheath/core) bicomponent filaments. The requirement that the claimed arrangement consist of a single component structure is seen as distinguishing over their Martin disclosure which clearly leads in the direction of a multicomponent structure.

Indeed, at least a dual or two component structure of sheath-core is essential in Martin, and the material of the sheath is different from that of the core. See claim 1 of Martin. Further, in Examples 1 to 3 in Martin, there is described that sheath-core volume ratios are 60:40 (Example 1; column 25, Line 17), 50:50 (Example 2; column 25, Line 57), 50:50 (Example 3; column 26, Line 19), respectively.

Therefore, if a material of the sheath of Martin includes polymers claimed in the present invention as possible blend components, as pointed out in paragraph 6 of the outstanding Office

Action, in the filament of Martin, the core occupying 40 % to 50 % of the entire filament is different from the material (composition) of the sheath.

Thus, the filament of the present inventions is different from that of Martin, at least in terms of its constitution.

Therefore the filaments of the claimed invention are different from that of the Martin, thus the resulting product of the present invention is also different from that of Martin.

As to the disposition of the fibers in Kargol to effect a change in the desired density, while Kargol does this, this does not render it obvious to use this technique in Martin. Martin is directed to forming floor matting and abrasive articles. A change in density is floor matting would seem to be amount to a drawback and would tend to be avoided. As to abrasive articles, the same would seem to hold. Why bother with deliberately changing the density of the article? This would seem to invite unwanted uneven wearing during its use.

It would therefore seem to reason found in Martin not to use the change in density that is suggested in Martin.

A further problem that is encountered with the proposed combination of Martin and Kargol is that with Kargol at least a portion of the polymeric fibers which comprise the body is required to be coated with a fusible polymeric material for creating bonds between the polymeric fibers (see column 3, Lines 51 to 53). This must be compared with the disclosure of Martin which suggests that the filaments are self-bonded to one another by heating an aggregation thereof – see column 4, lines 30-39.

Thus, the teachings of these two references tend to clash in that one indicates a bonding agent is necessary while the other is not. Indeed, it is not seen that the hypothetical person of ordinary skill would bother with the teachings of Kargol once having considered the simpler connection technique used in Martin. There is no reason to complicate issues and increase the cost of production required to add the additionally bonding material prior heating. This taken with the lack of any requirement in Martin that a deliberate variance in density be incorporated into the product to which Martin is directed, attenuate any chance of a combination of Martin and Kargol being entertained by the hypothetical person of ordinary skill.

In connection with the Insley reference - the rejection of claims 7, 10, 49-51 under 35 USC § 103(a) as being unpatentable over Martin in view of Kargol in view of Insley (U.S. Patent No. 5,451,437) such as to acknowledge that "Martin et al. do not disclose using styrene-butadiene-styrene polymer as a component in the nonwoven web." To overcome this admitted shortcoming, Insley is cited as disclosing filamentous styrene-butadiene styrene is a useful elastic polymer in creating filaments (column 4, lines 30 to 44).

This then is suggested to render it obvious to one having ordinary skill in the art to use styrene-butadiene-styrene polymer in the nonwoven web of Martin in order to provide elasticity to the web as taught by Insley, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice."

However, as described above, the single component filament of the claimed invention is different from that of the two component arrangement used in Martin. Therefore, if styrene-butadiene-styrene disclosed in Insley is employed in the material of the filament of Martin, the claimed filament cannot result.

While the above references have been discussed individually, the ramifications of their combination(s) has also been analysed and as such the Examiner is requested to avoid an improper reliance on *In re Keller* (642 F.2d 413, 208 USPQ 871 (CCPA 1981)). The main thrust of *In re Keller* is that "the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." (Emphasis added)

Indeed, the "attacking references individually" issue which is frequently relied upon to refute arguments, actually stems *In re Young* 56 CCPA 757, 403 F.2d 754, 159 USPQ 725 (see paragraph [6] on page 882 of USPQ 208) and is definitely not the main basis of the *In re Keller*. Note is also called to *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) which merely cites the *In re Keller* decision, that as noted above, imports this relatively trivial issue from *In re Young*.

Conclusion

None of the proposed combinations are such as to lead to the claimed subject matter. Therefore, it respectfully submitted that the claims as they have been amended/newly added, are allowable over the art which has been applied in this Office Action. Favorable reconsideration and allowance of this application are courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

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